signals is lower than that of said first signals;

providing said second N signals separately to a plurality of base stations, respectively; and

converting each of said second N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal.

21. (NEW) A communication apparatus for a radio LAN system, comprising:

time-divisionally dividing unit dividing an input signal into first N signals;

converting unit converting said first N signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals;

providing unit providing said second N signals separately to a plurality of base stations, respectively; and

converting unit converting each of said N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal.

REMARKS

In accordance with the foregoing, claims 1, 2, 6, 7, 18, and 19 has been cancelled. Claims 3-5, 8, 9, 11, 12, 20, and 21 are pending and under consideration. A Request for Continued Examination (RCE) was filed on August 20, 2001 with a one-month extension of time. Since a response was not enclosed with that RCE, the RCE is deemed defective. Accordingly, concurrently herewith, a new RCE is being filed.

ENTRY OF AMENDMENT UNDER 37 C.F.R. § 1.116:

Applicant requests entry of this Rule 116 Response because the rejected claim(s) have been canceled; and new claims 20 and 21 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised. No new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining

Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTION UNDER 35 U.S.C. § 112:

In the Office Action, at page 2, claims 18-19 were rejected under 35 U.S.C. § 112, second paragraph, for the reasons set forth therein. Because claims 18 and 19 have been canceled, this rejection is rendered moot.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 2, claims 1-2, 6-7, 18, and 19 were rejected under 35 U.S.C. § 103 over the admitted prior art in view of U.S. Patent No. 5,490,183 to Nishimura et al. ("Nishimura"). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Because the rejected claims have been canceled, the rejection is hereby rendered moot. Further, it is the Applicant's position that new claims 20 and 21 are allowable and distinguishable over the prior art of record.

On page 2 of the specification, first paragraph, the admitted prior art provides that a signal is transmitted from a wiring LAN system to a plurality of radio base stations through a HUB in an asynchronous transfer mode (ATM). From the plurality of radio base stations, the signals are simultaneously transmitted to the terminal station on different frequencies. However, the admitted prior art fails to teach or suggest "time-divisionally dividing an input signal into first N signals" and "converting said first N signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals," as recited in independent claims 20 and 21. Further, Office Action correctly asserts that the admitted prior art fails to disclose down converting each signal no more than a frequency, which is allocated to said each base station. Specifically, the admitted prior art fails to teach or suggest "providing said second N signals separately to a plurality of base stations, respectively" and "converting each of said second N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal," as recited in independent claims 20 and 21.

Referring to Nishimura, in the Background of the Invention, the reference discloses a data multiplexing and separating circuit 21 that separates multiplexed 64 kbps digital audio signal supplied from mobile communication exchange station 1 for respective message channels to provide single corresponding demultiplexed 64 kbps digital audio signals to digital audio signal processing apparatuses 22a, 22b, . . . 22m. See col. 2, lines14-18. However,

Nishimura fails to teach or suggest that the multiplexed 64 kbps digital audio signal is time-divided. Specifically, Nishimura fails to teach or suggest "time-divisionally dividing an input signal into first N signals" and "converting said first N signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals," as recited in independent claims 20 and 21. Rather, Nishimura provides that a data multiplexing and separating circuit 23 **time-divisionally multiplexes the 11.2 kbps digital audio signals provided from the m digital audio signal processing apparatuses 22a, 22b, . . . 22m** to provide the result to n (n is a positive integer) radio base stations 3a, 3b, . . . 3n. See col. 2, lines 24-29.

Further, Nishimura provides that each of the digital audio signal processing apparatuses 22a, 22b, . . . 22m carries out low bit rate coding of the applied 64 kbps digital audio signal of each channel into a 11.2 kbps digital audio signal (digital to digital conversion) to provide that 11.2 kbps low bit rate coded signal to data multiplexing and separating circuit 23. See col. 2, lines 18-24. However, Nishimura is silent as to "providing said second N signals separately to a plurality of base stations, respectively" and "converting each of said second N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said **radio signals are received in parallel by said terminal**," emphasis added, as recited in independent claims 20 and 21.

Specifically, the feature of the present invention is in that a radio signal is divided into a plurality of time-divided radio signals, which can be received by a single terminal in parallel. Accordingly, the single terminal concurrently receives a plurality of time-divided radio signals from a plurality of different base stations, and demodulate the received time-divided radio signals so as to restore the radio signal before being time-divided.

According to Nishimura, its system may be implemented so that a signal indicating a low bit rate coding method is directly supplied to system control circuits 25 or 27 via a terminal 29, as shown in FIGS. 4 and 6. See col. 9, lines 60-67. However, this statement in combination with the rest of the disclosure of Nishimura does not teach or suggest "time-divisionally dividing an input signal into first N signals; converting said first N signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals; providing said second N signals separately to a plurality of base stations, respectively; and converting each of said second N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal," as recited in independent claim 20. Further, Nishimura fails to teach or suggest "time-divisionally dividing unit dividing an input signal into first N signals; converting unit converting said first N

signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals; providing unit providing said second N signals separately to a plurality of base stations, respectively; and converting unit converting each of said N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal," as recited in independent claim 21. Accordingly, Applicant respectfully requests that independent claims 20 and 21 are patentable in view of the prior art of record.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: October 18, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please CANCEL claims 1, 2, 6, 7, 18, and 19.

Please ADD the following claims:

20. (NEW) A communication method for a radio LAN system comprising:

time-divisionally dividing an input signal into first N signals;

converting said first N signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals;

providing said second N signals separately to a plurality of base stations, respectively; and

converting each of said second N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal.

21. (NEW) A communication apparatus for a radio LAN system, comprising:

time-divisionally dividing unit dividing an input signal into first N signals;

converting unit converting said first N signals into second N signals, wherein a rate of said second N signals is lower than that of said first signals;

providing unit providing said second N signals separately to a plurality of base stations, respectively; and

converting unit converting each of said N signals into a plurality of radio signals to be transmitted from each antenna of said base stations to a terminal, wherein said radio signals are received in parallel by said terminal.